What is claimed is:

1. A method of monitoring intra-thoracic fluid content, comprising:

measuring intra-thoracic impedance between a first electrode and a second electrode during a discrete portion of a cardiac cycle, said discrete portion characterized by a reduced amount of electrical noise due to reduced electrical and mechanical cardiac activity and providing an impedance output signal thereof;

removing at least a portion of remaining noise from the impedance output signal;

storing the filtered impedance output signal;

performing the first three steps during the discrete portion of the cardiac cycle for a predetermined number of cardiac cycles to thereby generate a set of filtered impedance data; and

mathematically manipulating the set of impedance data to render a representative impedance metric for said set of impedance data.

2. A method according to claim 1, wherein the discrete portion of the cardiac cycle comprises at least one of: a refractory portion, an isovolumic phase, an early isovolumic phase, a late part of a systolic phase, an early part of a diastolic phase, a minimum rate of change of cardiac pressure (dP/dt_{min}), a predetermined interval after delivery of a pacing pulse to a cardiac chamber, a moment prior to a scheduled pacing pulse to the cardiac chamber.

3. A method according to claim 2, wherein the predetermined interval after delivery of the pacing pulse to a cardiac chamber comprises an interval of between 10 and 30 milliseconds.

4. A method according to claim 1, wherein the pulse of energy comprises a monophasic pulse of energy.

5. A method according to claim 1, wherein the pulse of energy comprises a biphasic pulse of energy.

6. A method according to claim 1, wherein the pulse of energy comprises a predetermined pulse of electrical current.

7. A method according to claim 1, wherein the pulse of energy comprises a predetermined pulse of electrical potential.

8. A method according to claim 1, wherein the removing step further comprises filtering the set of filtered impedance data.

9. A method according to claim 8, wherein the filtering step further comprises applying a low-pass filter to the set of filtered impedance data sample.

10. A method according to claim 1, wherein the first electrode comprises a coil electrode.

11. A method according to claim 10, wherein the first electrode comprises coil electrode adapted to be disposed in the right ventricle.

12. A method according to claim 10, wherein the first electrode comprises coil electrode adapted to be disposed in a portion of the superior vena cava, a portion of a coronary sinus.

13. A method according to claim 10, wherein the second electrode comprises a canister-based electrode, a canister-mounted surface electrode, a surface-mounted electrode, a ring electrode, a tip electrode, a coil electrode.

14. A method according to claim 1, wherein said method is performed once per day on different dates and further comprising:

comparing the representative impedance metric for each set of impedance data;

in the event that a most recent set of impedance data indicates a relatively drier patient condition, providing an indication of the relatively drier patient condition; and

in the event that a most recent set of impedance data indicates a relatively wetter patient condition, providing an indication of the relatively wetter patient condition.

15. A method according to claim 14, wherein the indication comprises a fluid status trend display that correlates to the relatively drier patient condition or the relatively wetter patient condition.

16. A method according to claim 15, wherein said fluid status trend display comprises at least a one of: an alphabetical display, a textual display, a graphical display, a display of at least one line segment, a display of a slope of a line segment, a colored display, an audible display, a tactile display.

17. A method according to claim 1, further comprising:
disabling a cardioversion therapy circuit or a defibrillation therapy circuit.

18. A method according to claim 17, wherein in the event that at least one criteria for a fibrillation condition is met, performing the following steps:

re-connecting the cardioversion therapy circuit or the defibrillation therapy circuit; and

halting performance of the claimed method.

19. A method according to claim 1, further comprising:

performing a cross-check of the measured impedance values wherein at least one of the first electrode or the second electrode comprises a different electrode.

20. A method according to claim 19, wherein said different electrode comprises at least a one of:

a coil electrode adapted to be disposed in operative communication with a portion of a right ventricle, a portion of a superior vena cava, a portion of coronary sinus, a device canister, a surface-mounted electrode, a ring electrode, a tip electrode, an electrode forming a part of a subcutaneous electrode array.

21. A method according to claim 19, further comprising:

performing an impedance-based lead integrity test;

storing a lead impedance value resulting from the impedance-based lead integrity test;

comparing the lead impedance value with a prior lead impedance value; and

in the event the stored lead impedance value differs from the prior lead impedance value by more than a predetermined amount, declaring the set of impedance data flawed, and optionally providing an alert signal to the patient,

in the event the stored lead impedance value does not differ from the prior lead impedance value by more than a predetermined amount, declaring the set of impedance data valid.

22. A method according to claim 19, further comprising:

measuring a related parameter, said related parameter comprising at least a one of: a minute ventilation metric, a respiration rate, a tidal volume for the patient, during processing of a set of impedance data; and

storing a representative value of the related parameter.

23. A method according to claim 22, further comprising:

comparing the stored representative value of the related parameter to another representative value of the related parameter; and

in the event that a difference between the comparison of the representative values does not exceed a threshold value, declaring the set of impedance data valid.

24. A computer readable medium for performing a method of monitoring intra-thoracic fluid content, comprising:

instructions for measuring intra-thoracic impedance between a first electrode and a second electrode during a discrete portion of a cardiac cycle, said discrete portion characterized by a reduced amount of electrical noise due to reduced electrical and mechanical cardiac activity and providing an impedance output signal thereof;

instructions for removing at least a portion of remaining noise from the impedance output signal;

instructions for storing the filtered impedance output signal;

instructions for performing the first three steps during the discrete portion of the cardiac cycle for a predetermined number of cardiac cycles to thereby generate a set of filtered impedance data; and

instructions for mathematically manipulating the set of impedance data to render a representative impedance metric for said set of impedance data.

25. A medium according to claim 24, wherein the discrete portion of the cardiac cycle comprises at least one of: a refractory portion, an isovolumic phase, an early isovolumic phase, a late part of a systolic phase, an early part of a diastolic phase, a minimum rate of change of cardiac pressure (dP/dt_{min}), a predetermined interval after delivery of a pacing pulse to a cardiac chamber, a moment prior to a scheduled pacing pulse to the cardiac chamber.

26. A medium according to claim 25, wherein the predetermined interval after delivery of the pacing pulse to a cardiac chamber comprises an interval of between 10 and 30 milliseconds.

27. A medium according to claim 24, wherein the pulse of energy comprises a monophasic pulse of energy.

28. A medium according to claim 24, wherein the pulse of energy comprises a biphasic pulse of energy.

29. A medium according to claim 24, wherein the pulse of energy comprises a predetermined pulse of electrical current.

30. A medium according to claim 24, wherein the pulse of energy comprises a predetermined pulse of electrical potential.

31. A medium according to claim 24, wherein the removing step further comprises filtering the set of filtered impedance data.

32. A medium according to claim 31, wherein the filtering step further comprises applying a low-pass filter to the set of filtered impedance data sample.

33. A medium according to claim 24, wherein the first electrode comprises a coil electrode.

34. A medium according to claim 33, wherein the first electrode comprises coil electrode adapted to be disposed in the right ventricle.

35. A medium according to claim 33, wherein the first electrode comprises coil electrode adapted to be disposed in a portion of the superior vena cava, a portion of a coronary sinus.

36. A medium according to claim 33, wherein the second electrode comprises a canister-based electrode, a canister-mounted surface electrode, a surface-mounted electrode, a ring electrode, a tip electrode, a coil electrode.

37. A medium according to claim 24, wherein said method is performed once per day on different dates and further comprising:

instructions for comparing the representative impedance metric for each set of impedance data;

in the event that a most recent set of impedance data indicates a relatively drier patient condition, instructions for providing an indication of the relatively drier patient condition; and

in the event that a most recent set of impedance data indicates a relatively wetter patient condition, instructions for providing an indication of the relatively wetter patient condition.

38. A medium according to claim 37, wherein the indication comprises a fluid status trend display that correlates to the relatively drier patient condition or the relatively wetter patient condition.

39. A medium according to claim 38, wherein said fluid status trend display comprises at least a one of: an alphabetical display, a textual display, a graphical display, a display of at least one line segment, a display of a slope of a line segment, a colored display, an audible display, a tactile display.

40. A medium according to claim 24, further comprising:

instructions for disabling a cardioversion therapy circuit or a defibrillation therapy circuit.

41. A medium according to claim 40, wherein in the event that at least one criteria for a fibrillation condition is met, performing the following steps:

instructions for re-connecting the cardioversion therapy circuit or the defibrillation therapy circuit; and

instructions for halting performance of the claimed method.

42. A medium according to claim 24, further comprising:

instructions for performing a cross-check of the measured impedance values wherein at least one of the first electrode or the second electrode comprises a different electrode.

43. A medium according to claim 42, wherein said different electrode comprises at least a one of:

a coil electrode adapted to be disposed in operative communication with a portion of a right ventricle, a portion of a superior vena cava, a portion of coronary sinus, a device canister, a surface-mounted electrode, a ring electrode, a tip electrode, an electrode forming a part of a subcutaneous electrode array.

44. A medium according to claim 42, further comprising:

instructions for performing an impedance-based lead integrity test;

instructions for storing a lead impedance value resulting from the impedance-based lead integrity test;

instructions for comparing the lead impedance value with a prior lead impedance value; and

in the event the stored lead impedance value differs from the prior lead impedance value by more than a predetermined amount, instructions for declaring the set of impedance data flawed, and optionally providing an alert signal to the patient,

in the event the stored lead impedance value does not differ from the prior lead impedance value by more than a predetermined amount, instructions for declaring the set of impedance data valid.

45. A medium according to claim 42, further comprising:

instructions for measuring a related parameter, said related parameter comprising at least a one of: a minute ventilation metric, a respiration rate, a tidal volume for the patient, during processing of a set of impedance data; and

instructions for storing a representative value of the related parameter.

46. A medium according to claim 45, further comprising:

instructions for comparing the stored representative value of the related parameter to another representative value of the related parameter; and

in the event that a difference between the comparison of the representative values does not exceed a threshold value, instructions for declaring the set of impedance data valid.

47. A system for performing a method of monitoring intra-thoracic fluid content, comprising:

means for measuring intra-thoracic impedance between a first electrode and a second electrode during a discrete portion of a cardiac cycle, said discrete portion characterized by a reduced amount of electrical noise due to reduced electrical and mechanical cardiac activity and providing an impedance output signal thereof;

means for removing at least a portion of remaining noise from the impedance output signal;

means for storing the filtered impedance output signal;

means for performing the first three steps during the discrete portion of the cardiac cycle for a predetermined number of cardiac cycles to thereby generate a set of filtered impedance data; and

means for mathematically manipulating the set of impedance data to render a representative impedance metric for said set of impedance data.

48. A system according to claim 47, wherein the discrete portion of the cardiac cycle comprises at least one of: a refractory portion, an isovolumic phase, an early isovolumic phase, a late part of a systolic phase, an early part of a diastolic phase, a minimum rate of change of cardiac pressure (dP/dt_{min}), a predetermined interval after delivery of a pacing pulse to a cardiac chamber, a moment prior to a scheduled pacing pulse to the cardiac chamber.

49. A method of assessing fluid status of a patient, comprising:

a) injecting a pulse of energy during a single cardiac cycle from a first electrode during an interval of time when a chamber of heart is in a refractory state;

b) receiving a portion of the pulse of energy at a second electrode;

c) measuring a resultant impedance value for the pulse of energy;

d) storing the resultant impedance value; and

e) performing steps a-d for a predetermined number of cardiac cycles until a sample set of resultant impedance values are stored.

50. A method according to claim 49, wherein the injecting step further comprises: injecting during a one of: an isovolumic phase, an early isovolumic phase, a late portion of a systolic phase, an early portion of a diastolic phase, a minimum rate of change of cardiac pressure (dP/dt_{min}), a predetermined interval following delivery of a pacing pulse, a moment prior to delivery of a pacing pulse.

51. A method according to claim 49, further comprising:

e) filtering the sample set to remove noise attributable to respiratory effort.

52. A method according to claim 51, wherein the filtering step further includes a low-pass filtering step.

53. A method according to claim 49, wherein the first electrode comprises a coil electrode.

54. A method according to claim 53, wherein said coil electrode is adapted to be disposed in operative communication with a portion of a superior vena cava, a portion of a right ventricle, or a portion of a coronary sinus.

55. A method according to claim 49, wherein the second electrode comprises a canister-based electrode, a canister-mounted surface electrode, a surface-mounted electrode, a ring electrode, a tip electrode, a coil electrode.

56. A method according to claim 49, wherein said method is performed once per day on different dates and further comprising:

comparing the representative impedance metric for each set of impedance data;

in the event that a most recent set of impedance data indicates a relatively drier patient condition, providing an indication of the relatively drier patient condition; and

in the event that a most recent set of impedance data indicates a relatively wetter patient condition, providing an indication of the relatively wetter patient condition.

57. A method according to claim 56, wherein the indication comprises a fluid status trend display that correlates to the relatively drier patient condition or the relatively wetter patient condition.

58. A method according to claim 57, wherein said fluid status trend display comprises at least a one of: an alphabetical display, a textual display, a graphical display, a display of at least one line segment, a display of a slope of a line segment, a colored display, an audible display, a tactile display.

59. A method according to claim 49, further comprising:
disabling a cardioversion therapy circuit or a defibrillation therapy circuit.

60. A method according to claim 59, wherein in the event that at least one criteria for a fibrillation condition is met, performing the following steps:

re-connecting the cardioversion therapy circuit or the defibrillation therapy circuit; and

halting performance of the claimed method.

61. A method according to claim 49, further comprising:

performing a cross-check of the measured impedance values wherein at least one of the first electrode or the second electrode comprises a different electrode.

62. A method according to claim 61, wherein said different electrode comprises at least a one of:

a coil electrode adapted to be disposed in operative communication with a portion of a right ventricle, a portion of a superior vena cava, a portion of coronary sinus, a device canister, a surface-mounted electrode, a ring electrode, a tip electrode, an electrode forming a part of a subcutaneous electrode array.

63. A method according to claim 62, wherein the step of providing an indication of the relatively wetter patient condition further comprises:

providing a wireless signal to an implantable drug pump wherein said signal commands operative circuitry of the drug pump to dispense a diuretic substance.

64. A method according to claim 62, wherein the step of providing an indication of the relatively wetter patient condition further comprises:

providing a patient alert signal to the patient;

providing a data transfer command to an implantable medical device; or

altering a pacing therapy delivery regime.